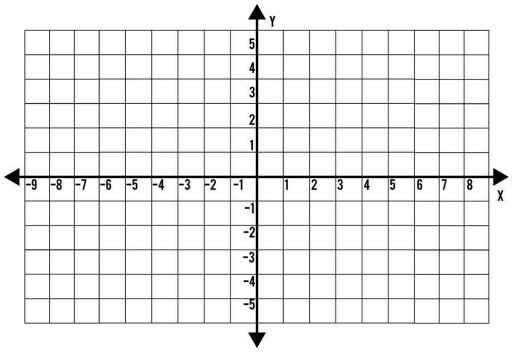
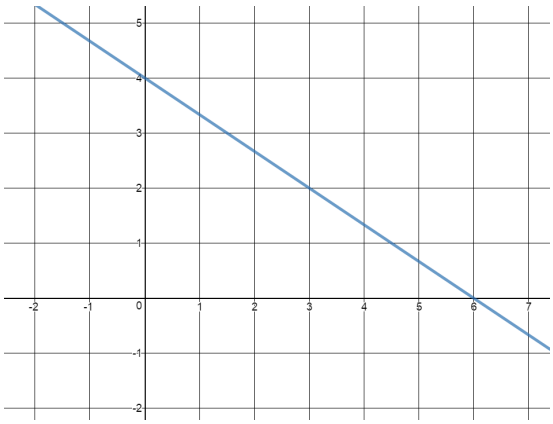
# Linear Functions: Re-Engage

**Graph:**

$y = -\frac{3}{2}x + 4$ $\quad y + 4 = 2(x - 3)$ $\quad x + 4y = -4$



---



Slope-Intercept Form  Point-Slope Form  Standard Form

slope  y-intercept  x-intercept  zero

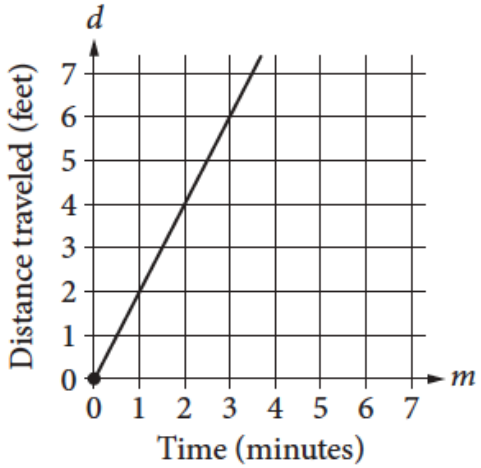
---

As a class experiment, a cart was rolled at a constant rate along a straight line. Shawn recorded in the chart below the cart's distance (x), in feet, from a reference point at the start of the experiment and for each of 5 times (t), in seconds.

| $t$ | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| $x$ | 10 | 14 | 18 | 22 | 26 | 30 |

Which of the following equations represents this data?

**A.** $x = t + 10$
**B.** $x = 4t + 6$
**C.** $x = 4t + 10$
**D.** $x = 10t + 4$
**E.** $x = 14t$



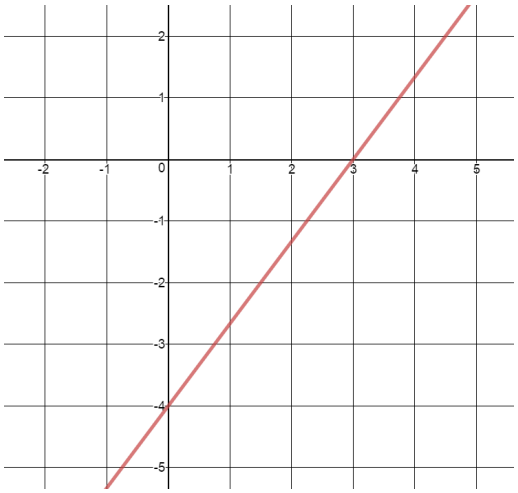

The graph above shows the distance traveled d, in feet, by a product on a conveyor belt m minutes after the product is placed on the belt. Which of the following equations correctly relates d and m?

**A)** $d = 2m$
**B)** $d = \frac{1}{2}m$
**C)** $d = m + 2$
**D)** $d = 2m + 2$

A student graphed the following equation and made a mistake. Analyze the reasoning to see what happened.

**y = 3x - 4**

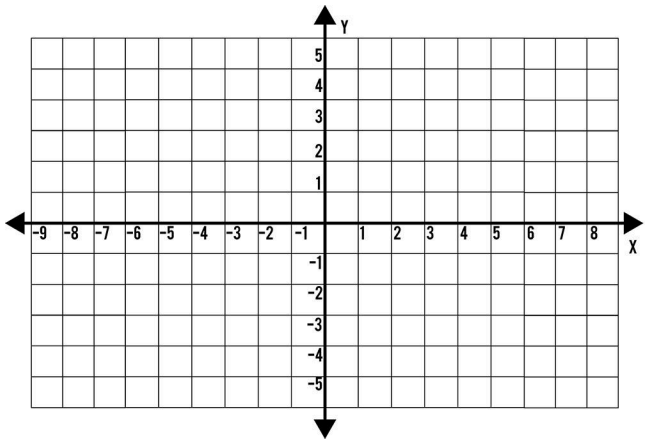
*I noticed that -4 was in the b spot in the y = mx + b equation so I started at that point on the graph. Then, I noticed that the 3 was next to the x and knew it had to be the x intercept. So, I plotted a line through -4 on the y-axis and 3 on the x-axis.*



---

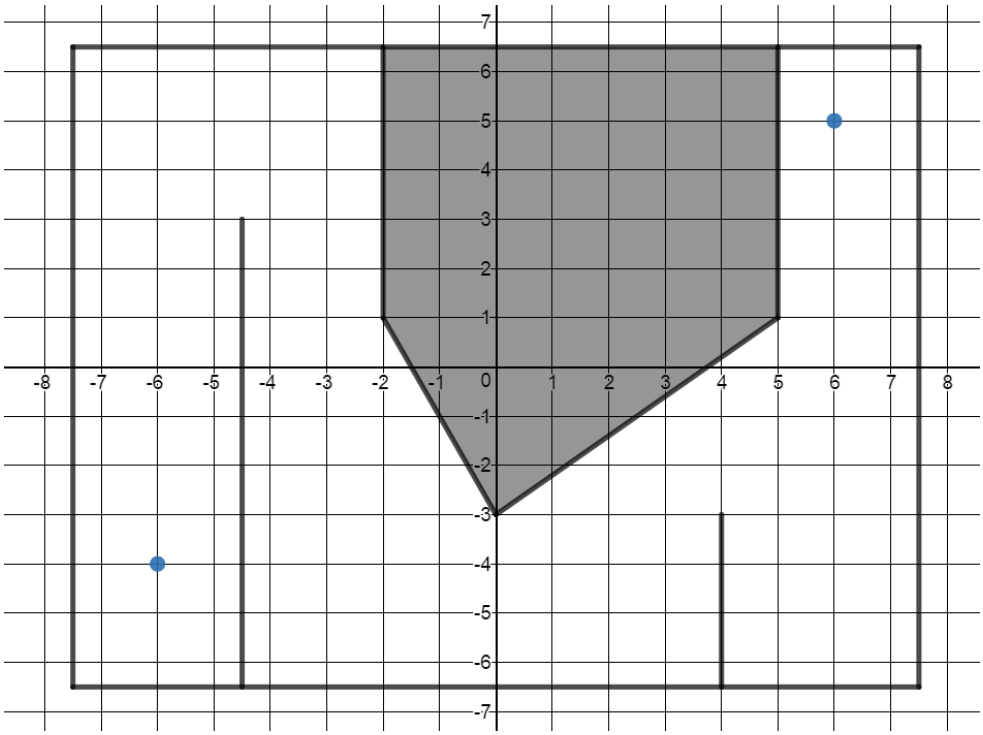
Fill in the blanks to make an equation passing through the point (3, -2).

$\square x + \square y = \square$




---

Write 4 equations that will connect the two dots → [bit.ly/maze35](bit.ly/maze35)



Equation 1

Equation 2

Equation 3

Equation 4